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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,255	03/13/2001	Yoshiaki Tomomatsu	35.G2783	9122

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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2625

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,255

Applicant(s)

TOMOMATSU, YOSHIAKI

Examiner

James A. Thompson

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5,9,11 and 13-15 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 02 May 2006 have been fully considered but they are not persuasive.

Firstly, the present amendments to the claims are taught by the prior art of record, as set forth in detail above. The new grounds of rejection presented below have been necessitated by the present amendments to the claims and by the newly added claims.

Secondly, Ueda (US Patent 6,008,812) does not teach that the image data is rendered twice, at least in the sense commonly understood. The image bitmap data is read and divided into regions for the purpose of classification. This can only be considered "rendering" in the sense that the presently recited steps of identifying, obtaining, correcting and developing can be considered "rendering". The reading out of the image data in Ueda is only for the purpose of classification. It is not for the purpose of a final output, which does require the final rendering of the processed image data.

Finally, Examiner did not state in the previous office action that Clouthier (US Patent 5,949,964) teaches rendering other kinds of image data twice. Clouthier teaches that, when the identifying means fails to identify the specific type of object (column 3, lines 39-43 of Clouthier), said rendering command is inputted one time during the operation of said identifying means and said developing means (column 4, lines 9-13 of Clouthier). It can therefore directly be part of the received image data (column 4, lines 9-13 of Clouthier), since said object is already in raster format, and therefore does not

Art Unit: 2625

need image correction commands to be re-input and thus has only be inputted one time. By using a default image rasterizing processing for unidentifiable image portions, Clouthier can be combined with the teachings of Ueda such that objects that are identifiable are corrected based on the specific designation (column 5, lines 56-65 of Ueda), but if there is no designation, then there are no criteria by which to perform image correction, and the default image processing taught by Clouthier is used.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5, 9, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent 6,008,812) in view of Yamada (US Patent 4,672,462) and Clouthier (US Patent 5,949,964).

Regarding claims 1, 9 and 11: Ueda discloses an image processing apparatus (figure 1 of Ueda) for processing an input image that contains a plurality of objects (figure 10; and column 16, lines 40-42 and lines 45-48 of Ueda) comprising identifying means (figure 1(11(portion)) of Ueda) for identifying the types of objects (column 5, lines 25-28 of Ueda) based on a rendering command (column 4, lines 54-58 and column 5, lines 3-8 of Ueda). The CPU (figure 1(12) of Ueda) loads the

Art Unit: 2625

software programs (column 4, lines 62-64 of Ueda), wherein said software programs include illustration image editing software, word processing software, and others (column 4, lines 37-43 of Ueda), and executes said software programs based on the type of image data (column 5, lines 3-7 of Ueda), said image data types including photographic image data, text data, and others (column 5, lines 24-28 of Ueda). Said image data types are combined into a single composite image (column 4, lines 54-55 of Ueda), which is, by definition, rendering said composite image. The rendering command statements that are entered via the various software programs must inherently be analyzed in order to determine which software programs are used to edit and render which portion of the composite image data.

Ueda further discloses means (figure 1(11(portion)) of Ueda) for obtaining an image correction condition (column 17, lines 24-28 and lines 32-37 of Ueda) based on image characteristics of a specific type of object (column 17, lines 18-24 of Ueda); image correcting means (figure 1(11 (portion)) of Ueda) for correcting the input image (column 25, lines 55-59 of Ueda) related to the specific type of object by using said image correction condition (column 26, lines 3-8 of Ueda); developing means (figure 1(11(portion)) of Ueda) for developing raster data based on said rendering command (column 26, lines 31-36 of Ueda); and determining means (figure 1(11(portion)) of Ueda) for determining whether said rendering command for an image area is inputted only one time or a plurality of times into said identifying means, said obtaining means, said correcting means, and said developing means based on whether said identifying means determines that an image area has said specific type of object (column 18, lines 49-63 of Ueda) so that if an image area has

Art Unit: 2625

said specific type of object (figure 11 and column 5, lines 56-58 of Ueda), said rendering command is inputted a plurality of times during operation of said identifying means, said obtaining means, said correcting means, and said developing means (column 5, lines 59-65 and column 18, lines 49-63 of Ueda).

The microcomputer portion (figure 1(11) of Ueda) of the apparatus (figure 1 of Ueda) includes a CPU (figure 1(12) of Ueda), which performs the various operations of said apparatus (column 4, line 61 of Ueda), a program memory (figure 1(13) of Ueda), a working memory (figure 1(14) of Ueda), and an image memory (figure 1(16) of Ueda) (column 4, lines 19-24 of Ueda). The identifying means, obtaining means, correcting means, developing means, and determining means are the corresponding portions of the physically embodied software programs that are executed by the microprocessor and thus perform the operations of said identifying means, said obtaining means, said correcting means, said developing means, and said determining means.

Ueda does not disclose expressly that said developed raster data, and thus said image area, is of a predetermined size; and that, when said identifying means fails to identify the specific type of object, said rendering command is inputted one time during the operation of said identifying means and said developing means.

Yamada discloses organizing multiple image regions of a single image into image areas of a predetermined size (figure 2; figure 6; and column 4, lines 17-29 of Yamada).

Ueda and Yamada are combinable because they are from the same field of endeavor, namely the control, correction and rendering of image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to

Art Unit: 2625

set the image areas taught by Ueda according to a predetermined template, as specifically taught by Yamada. The motivation for doing so would have been using a predetermined template would eliminate the computationally intensive procedure of Ueda whereby the image regions are determined (see figure 4 of Ueda and column 2, lines 17-36 of Yamada). Therefore, it would have been obvious to combine Yamada with Ueda.

Ueda in view of Yamada does not disclose expressly that, when said identifying means fails to identify the specific type of object, said rendering command is inputted one time during the operation of said identifying means and said developing means.

Clouthier discloses that, when the identifying means fails to identify the specific type of object (column 3, lines 39-43 of Clouthier), said rendering command is inputted one time during the operation of said identifying means and said developing means (column 4, lines 9-13 of Clouthier). If the specific type of an object is not identified, said object is assumed to be raster image data (column 3, lines 39-43 of Clouthier). It can therefore directly be part of the received image data (column 4, lines 9-13 of Clouthier), since said object is already in raster format, and therefore does not need image correction commands to be re-input and thus has only be inputted one time.

Ueda in view of Yamada is combinable with Clouthier because they are from the same field of endeavor, namely the control, correction and rendering of image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to designate an object as a default raster image data type if said object is not identifiable, as taught by Clouthier, and therefore have no image corrections performed on

Art Unit: 2625

said object. The motivation for doing so would have been that, if an object is not identifiable, then clearly it would not be logical to perform image correction upon said object. Objects that are identifiable are corrected based on the specific designation (column 5, lines 56-65 of Ueda), but if there is no designation, then there are no criteria by which to perform image correction. Therefore, it would have been obvious to combine Clouthier with Ueda in view of Yamada to obtain the invention as specified in claims 1, 9 and 11.

Further regarding claim 1: The apparatus of claim 9 performs the method of claim 1.

Further regarding claim 11: The apparatus of claim 9 comprises the program embodied on a recording medium recited in claim 11.

Regarding claim 2: Ueda discloses that said specific type of object is a photographic image (figure 11 and column 5, lines 25-31 of Ueda).

Regarding claim 5: Ueda discloses a dividing step for dividing said input image containing said plurality of objects into a plurality of portions (figure 9 and column 8, lines 41-46 of Ueda). In the example of figure 9 of Ueda, all of the photographic partial images (figure 9(52a-52m) of Ueda) are placed in a photographic portion (figure 9(52) and column 8, lines 47-49 of Ueda). Further, another photographic region is formed (figure 9(54) and column 8, lines 49-52 of Ueda), two separate text regions are formed (figure 9(56,58) and column 8, lines 52-55 of Ueda), and a graphic image regions is formed (figure 9(60) and column 8, lines 55-57 of Ueda).

Ueda does not disclose expressly a setting step for setting an image area position; and a fetching step for fetching the rendering command related to the set image area position.

Yamada discloses a setting step for setting an image area position (figure 2 and column 4, lines 5-10 of Yamada); and a fetching step for fetching the rendering command related to the set image area position (figure 2 and column 4, lines 10-15 of Yamada).

Ueda and Yamada are combinable because they are from the same field of endeavor, namely the control, correction and rendering of image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to set the image areas taught by Ueda according to a predetermined template and fetch said template for said set image areas when the image data is to be rendered, as specifically taught by Yamada. The motivation for doing so would have been using a predetermined template would eliminate the computationally intensive procedure of Ueda whereby the image regions are determined (see figure 4 of Ueda and column 2, lines 17-36 of Yamada). Therefore, it would have been obvious to combine Yamada with Ueda to obtain the invention as specified in claim 5.

Regarding claims 13, 14 and 15: Ueda discloses that said identifying means determines the types of objects (figures 11-15 of Ueda) based on the number of bits in the rendering command representing the object (column 18, lines 12-22 of Ueda), and that said determining means determines the number of times said rendering command is inputted for an image area (column 18, lines 49-63 of Ueda) for said identifying means, said obtaining means, said correcting means, and said developing means based on the number of bits in the rendering command for the objects in

Art Unit: 2625

said image area (column 18, lines 12-22 of Ueda). The rendering is determined in part on how narrow is the determined category for the image areas processed (column 18, lines 12-22 of Ueda). Thus, the determinations performed by said identifying means and said determining means are performed based on the number of bits in the rendering command, since a narrower, and thus more complex, category would provide a higher number of bits for the rendering command. For example, the rendering command for an image area categorized as "photograph" only requires the number of bits needed to denote the fact that the image region is a "photograph" region. On the other hand, for a Gold Jewelry Still-Life Photograph area (see figure 13 of Ueda) more bits are clearly needed for the rendering command to denote that the image area is a Gold Jewelry Still-Life Photograph area.

As set forth in the arguments regarding claims 1, 9 and 11, the image area is of a predetermined size, as per the teachings of Yamada.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent 6,008,812) in view of Yamada (US Patent 4,672,462), Clouthier (US Patent 5,949,964), and well-known prior art.

Regarding claim 3: Ueda discloses an outputting step for outputting data representing the corrected object to an image forming unit (figure 1(24) and column 5, lines 14-19 of Ueda).

Ueda further discloses that said rendering command is inputted using software (column 4, lines 54-58 of Ueda). Therefore, said rendering command statements are inherently input from an operating system, which resides on a computer (figure 1(11) of Ueda), since said software inherently requires

an operating system in order to be loaded onto a computer and be executed on said computer.

Ueda in view of Yamada and Clouthier does not disclose expressly that said image processing method is executed by a printer driver.

It is accepted as well-known in the art that performing image processing using a printer driver and inputting commands from an operating system which resides on a computer are old, well-known, and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a printer driver for performing image processing since printer drivers are common means of performing image processing for the particular printer to which the resultant image is to be output.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (US Patent 6,008,812) in view of Yamada (US Patent 4,672,462), Clouthier (US Patent 5,949,964), and Kim (US Patent 5,963,665).

Regarding claim 4: Ueda in view of Yamada and Clouthier does not disclose expressly that said obtaining step calculates said image correction condition based on a histogram of the specific type of object.

Kim discloses plotting a histogram of each object (frame) of an image (column 5, lines 47-52 of Kim) and corrects each object of the image under a condition for image correction drawn from the histogram (column 4, lines 48-53 of Kim).

Ueda in view of Yamada and Clouthier is combinable with Kim because they are from the same field of endeavor, namely the processing and correction of image data. At the time of the

Art Unit: 2625

invention, it would have been obvious to a person of ordinary skill in the art to plot a histogram for an object, as taught by Kim, when a type of object is a specific type and using a rendering command statement that specifies rendering of the object, as taught by Ueda. The histogram would also be used to determine the condition for correcting the object, as taught by Kim. The motivation for doing so would have been to enhance the quality of the resulting image by compensating for the brightness levels of the different image frames (column 5, lines 36-40 of Kim). Therefore, it would have been obvious to combine Kim with Ueda in view of Yamada and Clouthier to obtain the invention as specified in claim 4.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

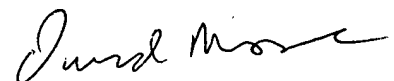
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



30 June 2006

James A. Thompson
Examiner
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